

LWG	No	Task	Subtask	Lead	Support	Pre-tasks	Calendar Qtr
		Tasks in support of Technical Session 1 - Government team finalize COCs, RGs and RALs. These tasks support Sections 2.2 and 2.3 of the FS.					
	1	Identify COCs	Identify BHHRA COCs	EPA -EA/BS			
			Identify BERA COCs	EPA - BS			
	2	Finalize PRGs	Identify BHHRA PRGs	EPA -EA/BS	Potential LWG role: Recalculate PRGs based on EPA comments for Human and Eco risk. Re-run benthic tox predictions and create revised layer based on EPA BERA comments. Provide revised PRGs and Benthic Risk layers to EPA for Agency FS team use.		
			Identify BERA PRGs	EPA - BS			
6	3	Finalize RAOs	Finalize RAOs	EPA	Potential LWG role: review FS approach and incorporate additional decision rules to incorporate tissue, TZW and subsurface sediment into RAOs with RGs.		

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4	4	Identify/verify COCs	Identify key factors to finalize COCs. Consider magnitude of risk, distribution of risk and uncertainties in the risk assessment.	EPA - EA/KK	CDM Potential LWG role: revise list of COCs and associated PRGs based on EPA comments to RAs. Develop RGs and receptor relevant averaging areas to support FS technology evaluation decision tree.	BHHRA BERA COC lists, ID benthic risk areas	Jan - Mar
			Evaluate chemicals identified in baseline risk assessments as potentially unacceptable risk in the human health and ecological risk assessments and map against PRGs. Mapping may include: 1. Interpolated surface and subsurface 2. Rolling average by river mile and stream lane 3. Swim lanes 4. Areas of benthic risk based on a multiple line of evidence (LOE) evaluation relying on bioassays as the primary LOE.				
			Finalize COCs				
6	5	Finalize RGs	Finalize RGs		CDM		
2	6	Identify Principle Threat Material and Hot Spots of Contamination	Identify PTM	EPA (PTM) DEQ (Hot Spot)	CDM Potential LWG role: ID areas >10-3 and HQ 10 and 100; maps for surface and subsurface sediment.	BHHRA BERA COC lists PRGs	Jan - Mar
			Identify Hot Spots				
			Draft Technical Memo				
6	7	Update RALs	Identify chemicals for RAL development	EPA	Potential LWG role: identify RALs for new COCs identified based on EPA comments to RAs and develop RALs consistent with existing alternatives/RALs		Jan - Mar
			Identify RALs – changes to FS table				
			Map RALs to facilitate selection of CULs and estimate areas of contamination requiring cleanup				Jan - Mar

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	8	Participate in Technical Session 1	Reach agreement on COCs, RGs, RALs, and PTM/Hotspots in specified matrices for RGs (surface sediment, tissue in target species, subsurface sediment). Milestone (February 2013).	EPA	CDM Potential LWG role: Discuss LWG approaches to above and reconcile with outcome of agency Technical Session 1.	COC lists, PRG lists RAL updates, mapping; ID maps needed prior to tech session	Jan - Mar Target-mid to late Feb
	Tasks in support of Technical Session 2 - Present results of updated remedial technology evaluation. These tasks support Section 2.4 of the FS.						
1	9	Reevaluate the effectiveness of MNR at the Portland Harbor site based on review of empirical information and EPA modeling.	Evaluate bathymetric change maps. (will include a year to year comparison, not just total time period) Evaluate results of linked hydrodynamic sedimentation model developed by Earl Hayter. Evaluate surface to subsurface sediment concentration ratios. Evaluate sediment erodibility and radionuclide results Summarize results of revised MNR Evaluation.	EPA	Corps (Earl Hayter, Karl Gustavson) CDM (Todd) Potential LWG role: Develop alternate approach based on lines of evidence short of the full model that will communicate rationale for selection of technologies, especially differentiating active remediation areas from candidate MNR areas.	SMA by SMA evaluation EPA provide Corps model results to LWG	Modeling Meeting end of Jan

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3	10	Reevaluate the short-term and long-term effectiveness of dredging at the Portland Harbor site.	Reevaluate assumptions regarding the potential for releases during dredging and water quality controls (e.g., sheet pile enclosures); include results from dredging projects undertaken at the Hudson River, Fox River and Passaic River sites. Develop estimates of release using USACE DREDGE Module. Summarize short term effectiveness evaluation of dredging.	EPA	Corps (Paul Schroeder) CDM Potential LWG role: Revise dredging effectiveness evaluation based on EPA comments. Develop reasonable range of effectiveness estimates based on varying assumptions as specified by EPA.	Agency develop assumptions for LWG use.	TBD
3	11	Reevaluate assumptions regarding dredging production at the Portland Harbor Site.	The time to complete dredging will be reevaluated based on production data from the Fox River (Hydraulic Dredging) and Hudson River (Mechanical Dredging) sites. Work with NMFS to determine conditions under which in-water work window may be extended. Summarize results of dredging production analysis	EPA	CDM NOAA (Genevieve) Corps (Schroeder) Potential LWG role: Develop less conservative production, staging and limitations on dredging based on Agency comments and recognizing economies of scale and sequence of operations.	Agencies develop revised fish window assumptions.	Jan – March (fish windows)
7	12	Reevaluate Capping	Capping models will be evaluated to confirm assumptions, application and results.	EPA	CDM	Identify POCs	TBD

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		Effectiveness	Reevaluate assumptions about cap stability and armoring requirements.		Potential LWG role: Update capping evaluations to include additional COCs. Vary hydraulic assumptions by order of magnitude to reflect potential range of outcomes. Determine need for treatability or pilot demonstrations by AOPC/COC.		
			Reevaluate assumptions about cap placement with respect to minimum water depth				
			Summarize results of capping assessment.				
7	13	Reevaluate assumptions regarding the effectiveness of EMNR.	Reevaluate assumptions regarding sediment stability to identify areas where EMNR may be effective.	EPA	CDM		
			Reevaluate assumptions regarding sediment deposition using results of MNR evaluation above.				
			Summarize results EMNR evaluation.				
7	14	Evaluate in situ treatment effectiveness.	Evaluate in-situ treatment effectiveness through review of pilot scale application of in-situ treatment.	EPA	CDM		
			Evaluate need for and timing of treatability studies.		Potential LWG role: Same as capping.		
			Summarize results of in situ treatment evaluation.				
	15	Evaluate on-site disposal options.	Evaluate on-site disposal options with respect to performance standards 6, 7, 9, 10, 11, 13 and 15.	EPA	CDM	T4 design info	
			Confirm transport modeling results, and flood rise modeling results		Potential LWG role: Add subalternative to all alternatives that assumes 100% offsite disposal.		
			Summarize results of disposal evaluation.				

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3	16	Develop Decision Tree	Develop Decision Tree to support application of remedial technologies at various areas of the site.	EPA	CDM Potential LWG role: Prepare detailed decision tree to identify conditions under which specific technologies are screened in or out based on physical/chemical/hydrodynamic and land use factors. Incorporate EPA concerns.	Info needed to supplement Section 7 tables; evaluation info needed to complete evaluation	
	17	Technical Session 2	Reach agreement on the screening of remedial technologies. Milestone (May 2013).	EPA	CDM	SMA by SMA evaluation	April-May
	Develop remedial action alternatives based on updated RALs and an updated remedial technology evaluation. These tasks support Sections 3.1 and 3.2 of the FS.						
3	18	Assign Remedial Technologies on an AOPC basis	Develop or modify approach for assigning remedial technologies to site AOPCs based on a range of RALs and site specific information related to the effectiveness, implementability and cost.	EPA	CDM LWG		April - May
			Identify or verify remedial technologies deemed most favorable based on site specific conditions to develop remedial action alternatives.				
			Develop or verify remedial action alternatives for each AOPC based on combinations of the remedial technologies deemed most favorable based on site specific conditions.				

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	19	Technical Session 3	Finalize remedial action alternatives to be evaluated, including new or modification of current alternatives in the FS.	EPA	Potential LWG role: participate in follow up meeting in June to develop one or more alternatives that meet agency concerns.		June
		Present results of detailed evaluation of remedial action alternatives. These tasks support Section 4 of the FS.					
5	20	Estimate Time to Achieve RAOs	Evaluate time to achieve RAOs based on more realistic assumptions of the MNR effectiveness and implementation time frames. Develop or verify estimates of time required to implement dredging based alternatives. Develop technical memorandum that relies on the updated model to evaluate the time to achieve RAOs will be produced – compare to FS. Develop multiple line of evidence approach to provide a qualitative understanding of the time required to achieve further risk reduction. Perform simple modeling to supplement the fate and transport model in the draft FS Develop long term effective monitoring and adaptive management approach	EPA	CDM Potential LWG role: Develop framework to evaluate candidate areas for MNR after implementation of active remedies. Determine “triggers” in terms of RGs and timelines to re-evaluate active remedies if MNR does not perform as predicted.	T=0 evaluation; decision on whether additional modeling will be performed (many months lead time needed if so)	May - June
3	21	Develop estimates of areas and volumes	Develop or verify estimates of the areas and volumes of material to be addressed by the various remedial technologies for each remedial action alternative.	EPA	LWG		TBD
3	22	Develop Cost	Review cost estimates presented in draft FS for consistency with EPA guidance.	EPA	EPA ORD	SOW	Task 1 -

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		Estimates	Update FS cost estimate spreadsheets as necessary to support evaluation of updated remedial action alternatives. Development and implement approach to scale LWG cost estimates.		(RTI/CDM) Potential LWG role: Revise cost estimates based on revised dredging production timelines and 100% offsite disposal.		Feb Task 2 - May Task 3
3	23	Estimate time to implement remedy	Develop or verify estimates of time to implement each alternative and will require realistic assumptions about the timing and sequencing of remedial efforts.	EPA	CDM	Sequence criteria; compare to FS; fish window	
5	24	Evaluate Threshold Criteria	Evaluate attainment of threshold criteria with independent assessment of effectiveness of alternatives presented in FS.	EPA	CDM		
	25	Evaluate Balancing Criteria	Evaluate balancing criteria for alternatives presented in FS.	EPA	CDM		
5	26	Evaluate Cost-Effectiveness	Evaluate cost-effectiveness consistent with NCP definition of cost-effectiveness. This task may require development of a metric for overall effectiveness (three criteria of long-term effectiveness and permanence; reduction of toxicity, mobility, volume thru treatment; and short-term effectiveness).	EPA	CDM		
5	27	Conduct the comparative evaluation of remedial action alternatives	Conduct the comparative evaluation of remedial action alternatives	EPA	CDM		

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	28	Technical Session 4	The results of the detailed evaluation of remedial action alternatives will be used as the basis for EPA's preferred alternative EPA's proposed plan.	EPA			Q3 or Q4
	FS Report						
8	29	Revise FS Report consistent with EPA guidance (redline/strikeout format)	Section 1 – Purpose and Introduction (Section 1.1 of FS Guidance)	EPA			April – Sept (all)
			Section 2 – Site Description (Section 1.2 of FS Guidance)	EPA			
			Section 3 – RAOs and RGs (Section 2.2 of FS Guidance)	EPA			
			Section 4 – RALs (Section 2.3 of FS Guidance)	EPA			
			Section 5 – SMAs and AOPCs (Section 2.3 of FS Guidance)	EPA			
			Section 6 – Identification and Screening of Technologies (Sections 2.3 and 2.4 of FS Guidance)	EPA			
			Section 7 – Development of Remedial Action Alternatives (Section 3 of FS Guidance)	EPA			
			Section 8 – Detailed Evaluation of Remedial Action Alternatives (Section 4 of FS Guidance).	EPA			
			Section 9 – Comparative Analysis of Evaluation of Remedial Action Alternatives (Section 4 of FS Guidance).	EPA			
			Section 10 - Conclusions	EPA			
			Finalize Revised FS. Milestone (Nov 2013)				